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Adverse effects of the illicit movement and dumping of toxic and dangerous products and wastes on the enjoyment of human rights

Report submitted by Mrs Fatma-Zohra Ksentini,
Special Rapporteur

Addendum

Report on the mission to Latin America

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Introduction

1. In accordance with the mandate given to her by the Commission on Human Rights in resolutions 1995/81 and 1998/12, the Special Rapporteur undertook a mission to South America in order to ascertain what problems the illegal traffic in toxic and dangerous products and wastes posed with regard to the enjoyment of human rights in the region. At the invitation of the governments of four countries, she visited Paraguay from 14 to 19 June, Brazil from 20 to 28 June, Costa Rica from 17 to 20 November 1998 and Mexico from 21 to 30 November 1998.

2. The purpose of this mission was to hold consultations, study the laws in force in each of the countries visited and observe actual cases where the illicit movement and dumping of toxic and dangerous products and wastes were having adverse effects on the enjoyment of human rights. It likewise served to publicize the Special Rapporteur's mandate.

3. The Special Rapporteur would like to express her gratitude to the Governments and governmental and non-governmental institutions of Brazil, Costa Rica, Mexico and Paraguay for the cooperation and assistance they extended to her during her mission. She also wishes to thank all persons who supplied her with information and the United Nations Development Programme staff stationed in the countries visited for the logistical and organizational support given to her mission.

4. The first four chapters of this report follow the chronological order of the mission and not the alphabetical order of countries.

I. TALKS AND CONSULTATIONS IN PARAGUAY

5. The Special Rapporteur met various Paraguayan authorities in order to determine the nature and cause of the issue which had been brought to her attention, record any cases in which the life or health of persons had been placed in jeopardy, discuss possibilities of strengthening Paraguay's capacity to combat the illicit dumping of toxic or dangerous products or wastes and, lastly, consider means of disposing of the products stored in the river port of the capital, Asunción. In particular, she held talks with Mrs Leila Rachid Lichi, Deputy Minister for Foreign Affairs, the members of the National Executive Committee for the Application of the Basel Convention, members of the special Senate Commission of Inquiry into Toxic Waste, officials of the National Institute of Technology and Standardization, officials of the port authorities and officials of the General Directorate for Environmental Management Control. The Special Rapporteur visited shed G in the river port of Asunción. In addition, she held talks with the representative of the Pan-American Health Organization (PAHO) and representatives of non-governmental organizations.

A. Legal and institutional context

6. Environmental matters come under the authority of the Department of the Deputy Minister for Natural Resources and the Environment, which was set up in 1989 at the Ministry of Agriculture and Livestock. It is this Department's duty to implement in Paraguay Agenda 21 of the Rio de Janeiro Conference on Environment and Development (1992), especially chapter 19 on the management of

toxic substances and dangerous products. The Paraguayan Constitution contains provisions on environmental protection and ecological crime..

7. A National Executive Committee was set up in 1998 in order to ensure the application of the Basel Convention in Paraguay. It has the following members:

- a representative of the Department of the Deputy Minister for the Environment;
- a representative of the Ministry of Health;
- a representative of the Technical Planning Secretariat of the President's Office;
- a representative of the Ports' Administration;
- a representative of the Faculty of Natural Science of Asunción University;
- a representative of the military engineering command;
- a representative of the ecological branch of the National Police Force.

8. Not only does the Committee have to contend with the current situation, that is to say with the waste being stored at the river port of Asunción, it also has to deal with environmental, health and human rights issues. It was founded in pursuance of article 5.1 of the Basel Convention which requires States parties to establish a competent authority.

9. An ecological branch of the police force was established in 1994 to curb ecological crime, carry out investigations at the request of the public prosecutor, enforce respect of protected areas and prevent the illicit dumping of dangerous and toxic substances which are injurious to the environment and human life and health.

10. Paraguay has ratified Annex III to the Basel Convention. In 1990 Parliament adopted Law 42/90 which prohibits the import, storage and use of products which are recognized as being dangerous or toxic industrial waste. The Law codifies 168 types of toxic or dangerous residues, the import of which into Paraguay is banned. It provides for the suspension of the importer's activities or the withdrawal of their import licence, as well as criminal proceedings against them in the event of the law being infringed. It also lays down that the toxic or dangerous waste must be re-exported to the country of origin at the offender's expense and that re-exportation must be carried out under the supervision of the National Committee for the Defence of Natural Resources and of the Paraguayan Consulate in the country of export. Pursuant to this Law, ecological offences are not time-barred.

B. Particular cases brought to the attention of the Special Rapporteur

11. In its communication to the Special Rapporteur in December 1997 and through the statement of its representative to the fifty-fourth session of the Commission on Human Rights, the Paraguayan Government drew the international community's attention to the discovery in 1997, in the port of Asunción, of 1,118 barrels of dangerous or toxic wastes, which had entered Paraguayan territory illegally and were said to come from industrialized countries. Since 1992, they had been stored in an area which floods easily and were likely to pollute the waters of the Paraguay river. In view of these circumstances, the Government, at the recommendation of the Special Rapporteur, requested the technical cooperation of the Secretariat for the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (SBC) on 9 January 1998. In the report of 1 February 1998, the expert sent to Paraguay by the SBC spoke of the need to identify the exact substances in question. To this end, the Paraguayan Government requested the cooperation of the Joint UNEP/OCHA Environment Unit of the United Nations Environment Programme and the United Nations Office for the Coordination of Humanitarian Affairs. On 20 March 1998, the Permanent Mission of Paraguay in Geneva was informed that, despite all the efforts made, it had been impossible to form a group of experts to take the requisite samples or to obtain, from countries with such resources, the services of laboratories to conduct the preliminary analyses.

12. The Paraguayan Government pursued its endeavours to find a rapid solution to this problem by inviting the Special Rapporteur to carry out her mandate *in situ*.

13. Before she went to Paraguay, the Special Rapporteur held consultations with the Secretariat for the Basel Convention in order to coordinate their action. During her stay, the United Nations Environment Programme published a press release in which it called on the international community to take all the requisite steps to ensure the sound management of toxic wastes and to eliminate the danger they represented. In the press release she published herself on 19 June, at the end of her visit, the Special Rapporteur endorsed this appeal and emphasized the vital nature of preventive action at national, regional and international level to halt the illicit dumping of toxic and dangerous products, which seriously threatened the rights of every individual to life, health and a healthy environment.

14. The Paraguayan authorities were delighted with the interest shown by the United Nations in the attempt to find a solution to the presence of toxic and dangerous products and waste in their territory and provided background information about transfers of such products to Paraguay.

15. In 1998, a former member of the staff of the Paraguayan Embassy in Germany disclosed to a court in Asunción that several loads of toxic wastes produced in Germany and Switzerland had been sent to Paraguay from German and Belgian ports between 1989 and 1992 under the guise of donations to fictitious persons. It was alleged that senior Paraguayan officials and the honorary consul of Paraguay in Düsseldorf, Mr Heinrich von Kreyenberg, were the driving forces behind this traffic. The wastes and products exported included polychlorinated biphenyl (PCB), a product whose manufacture and use are banned throughout the world. The

incineration of PCB in improper conditions leads to the formation of furans and dioxin, agents which are highly carcinogenic and mutagenic.

16. According to documents in the possession of the Special Rapporteur, the export of this toxic waste was part of a huge deal between dignitaries in Paraguay and German firms. In 1989, the ecological organization Greenpeace had revealed the existence of a letter of intent signed by a German waste-processing firm, Pick Up Problems, and these dignitaries in Paraguay, who were acting in a personal capacity, for the export of 1,200,000 tons of waste which were to be processed in the Chaco region, where there were plans to build an incineration plant.

17. Three attempts to send toxic waste to Paraguay from the port of Bremen are said to have been uncovered in 1990. In one case, in February 1990, the German police stopped and examined a ship carrying 911 barrels of toxic waste intended for export to Paraguay, which had been fraudulently labelled "bitumen and resin". The trick was discovered when one of the barrels burst open during loading and the police could be alerted. In another case, it is reported that after the firm Chemex AG SWE Entsorgungsbetriebe KG, which was owned by Mr von Kreyenberg, had been denounced, it re-routed about 1,000 tons of toxic waste to the former East Germany, where they were burnt in the boilers of a school in the town of Gustrow. Mr von Kreyenberg was sentenced by the courts to four years' imprisonment for this criminal act. He was released on parole after ten months' detention.

18. The sets of barrels stored in the port of Asunción are said to be part of this illicit trade, although the documents which would have made it possible to trace their origin have reportedly disappeared from the files of the port authority.

19. The talks with the Paraguayan authorities and the documents forwarded to the Special Rapporteur likewise concerned the export of an "alternative fuel" from Germany between 1989 and 1992. This "fuel", supplied in the form of a gift, was intended for the company National Cement Industry (INC), located at Vallemi in the Aquidabon region in the north of Paraguay. 100,000 tons of this product were to have reached the cement works every year. (see also paragraph 35 below). Mr von Kreyenberg is said, once again, to have acted as intermediary for this gift. Although the Paraguayan cement works did not have the appropriate technology, this fuel was exported and used, thus endangering the life of the work's employees.

20. The new government took a variety of steps in response to the two above-mentioned cases: it opened an inquiry to determine the nature of the products stored in the port - this was done with international technical assistance; it initiated a search for the persons who had engaged in this illicit trade by referring the case to the law courts; it took the necessary precautions to prevent any damage to human beings or the environment; it located other sites where toxic waste had been dumped; it identified victims and harm to the environment.

21. At the request of the Paraguayan Government, the Secretariat for the Basel Convention sent an expert from 19 to 23 January 1998 to make a preliminary assessment of the problem caused by the storage in the port of Asunción of

numerous batches of barrels of products. On the basis of the expert's recommendations and the analysis of some batches which had been carried out beforehand by the National Institute of Technology and Standardization, minimum safety measures were adopted, such as the dividing up of the barrels into several batches and the construction of a low protective wall.

22. One set of barrels, which had arrived in Paraguay from the port of Montevideo (Uruguay) in July 1992, had been entered in the port's register as "fertilizer". The shipping agent shown on the manifest was the firm Transcontinental SRL and the importer was given as the company Agrocomercial del Norte, which strangely, did not exist in 1992, but which was set up in 1996. In 1993, the National Institute of Technology and Standardization (INTN) took two samples for analysis and discovered phosphate, chlorine, sulphate, ammonia and nitrates. It concluded that the product was, in fact, a non-toxic, innocuous solution combining nutrients and a fungicide for hydroponics. Nevertheless, since the method of analysis had not been specified in the report, the expert from the Secretariat for the Basel Convention commented that the INTN's findings could be confirmed only after further analyses had been conducted in order to find out whether any other substances were present. Moreover, he asked why it had been necessary to dilute the "fertilizer" which could have been exported as a concentrate. There is therefore a strong suspicion that this consignment had served to camouflage money laundering and drug trafficking operations.

23. The fourteen other batches in storage were as follows (when the number of barrels is not indicated, this is because it has not been supplied by the expert):

a) barrels labelled "waste", 27 of which were intended for Mr Roberto Espinoza (unknown in the country). On the lid of each barrel there is the inscription "PLASTIENVASE, teléfonos 3730219/3730407";

b) 218 barrels marked "Clorato de Potassio", imported in May 1993, without a consignee;

c) barrels giving off a strong smell of solvent;

d) barrels with the word "Arthemis" and an inscription in Spanish "Preparación Hedera Helix base" and the inscription in English "Do not reuse for food or drink. Container use with hazardous materials subject to government regulations";

e) blue plastic barrels intended for CUEROSIL SRL and labelled "Henkel Fondocupe 449-Henkel Düsseldorf";

f) barrels with the words "Tintura Madre de Fucus";

g) barrels with the inscription "Van leer TARSA Ind. Argentina";

h) barrels marked "SFT OIL ALPA Pregnata Milanese Italia" intended for Procuer S.A, a well-known Paraguayan leather company;

i) 22 barrels of "Matéria Prima - Grassan IPD" intended for the Compañia Importación y Exportación del Paraguay, which arrived in April 1994;

j) 192 barrels marked "Productos Químicos", with the inscription "de Distribuidora del Caribe SA, Apartado 36 Panama RP, a ..., 25 mayo N° 74, Avellaneda, Buenos Aires, Republica Argentina. TINT MADRE FUCUS DDC";

k) barrels with the inscription "Allec Parque Industrial Gral Pico, La Pampa. Informe 237900/0700 Cap. Federal, Republica Argentina";

l) barrels labelled "BMP 144 Biolarvicide. Ingredient: Bacilus thuriqiensis vs israelensis. De Becker Microbial Products, 9464 NW 11th Street, Plantation FL 33322";

m) barrels intended for IMPOPAR and marked "Do not reuse for food and drink. Container use with hazardous materials subject to government regulations";

n) barrels labelled "TINOFIX WC Con CIBA" and sent to CEIPSA-Paraguay.

After an inventory had been drawn up of all these sets of barrels, the SBC expert concluded that it was impossible to determine the contents of the barrels without the assistance of teams of toxicologists equipped with suitable analytical instruments and protective gear.

24. The Paraguayan Government therefore once again requested help from the Secretariat for the Basel Convention, which sent a team of six French experts from the United Nations Environment Programme. Having taken and analysed samples from 13 to 15 May 1998, these experts were able to identify some products on the spot: they detected bases (nitrates and potassium chlorate) of the type used by the industries in question; nevertheless, they had to take some samples back to France for a more precise analysis of other products contained in various barrels.

25. The Special Rapporteur visited shed G in the port of Asunción on 16 June 1998. She noted that in accordance with the recommendations of the SBC expert, a low wall had been built to prevent the contamination of watercourses in the event of flooding. Similarly, the recommendation of the team of UNEP specialists, that the different categories of products be separated to avoid the risk of an explosion, had been carried out. As the condition of some of the containers had deteriorated, their contents were transferred to barrels which were in a better state.

26. Nine barrels of nitric acid were entrusted to the safekeeping of the National Institute of Technology and Standardization. 217 barrels of usable potassium chlorate were to have been transferred to the headquarters of the Directorate for War Equipment, in the town of Piribebuy, but the residents of the town were resolutely opposed to this. These barrels have therefore remained in shed G of the port, contrary to the recommendation of the UNEP task force, which means that there is a likelihood of explosions since the products being stored are incompatible.

27. The Special Rapporteur made a note of some of the labels affixed to the barrels. But, according to the people she spoke to, these labels did not provide any information about the contents of the receptacles or where they really came from. It seems that a deliberate attempt has been made to sow confusion by

decanting chemical products and wastes into barrels which had been salvaged and reused. All the same, these labels do suggest the existence of an international network of traffickers with branches in Europe and America Furthermore, it is highly probable that these barrels passed through other ports in the region (Buenos Aires and Montevideo) before arriving in Asunción.

28. Investigations have been opened by the Criminal Court of Asunción in response to a complaint lodged by the public prosecutor, with a view to finding the persons who had engaged in this unlawful trade in toxic waste. The judge in charge of the case went to the site and placed shed G under seal. No charges have yet been brought. as the documents relating to the export of waste to Paraguay have allegedly disappeared.

29. Suspicion falls on a general who was a former supreme commander of the Paraguayan armed forces, a former minister for agriculture, a former ambassador to Germany and a former ambassador to Brazil. In addition, the judge intends to issue an international arrest warrant for the former Paraguayan consul in Düsseldorf, Mr von Kreyenberg. A request for mutual assistance in judicial matters was forwarded to Germany on 22 April 1998, since it is strongly suspected that these products were dispatched from that country. A request for information about Mr von Kreyenberg was likewise forwarded to Interpol on 4 June 1998.

30. Complaints about the dumping of toxic waste in the interior of the country had been made, above all by the inhabitants of the Chaco region, long before the discovery of the barrels in the port of Asunción. In 1992, a parliamentary commission investigated the presence of 250 barrels buried in Chaco. The inquiry was broken off as a result of pressure from persons who might have been implicated in the deal. In 1993, the autonomous region of Nivakle refused the gift of 8,520 hectares in Chaco on the grounds that barrels containing unidentified products had been buried in the territory assigned to it.

31. In January 1998, several judges and public prosecutors initiated inquiries in response to complaints that barrels of toxic waste had been buried in several places within the country. These members of the state legal service encountered difficulties in eliciting the truth owing to the vegetation, the vagueness of the information supplied and threats from persons suspected of having taken part in these operations. One complaint asserted that in 1989 soldiers had buried toxic waste in the village of Maria Roque Alonso. The inquiry had been interrupted by flooding from the river Paraguay and pressure from certain residents of the village who had connections with those responsible for the burying. According to witnesses, a senior military officer was involved in the operation.

32. In the town of Teniente Ochoa, in Chaco, a judicial committee found a dump containing barrels covered with lime. Another dump containing 60 barrels was discovered nearby. In the district of Limpio, residents of the village of Suribi-i stated that from 1988 to 1989, the military had buried barrels of unknown content in the region. The judicial committee was unable to locate the site on account of floods, but one inhabitant told a member of the Parliamentary Commission that, in one place, the ground was covered with a yellowish red oil and that one of his friends had suffered from blurred vision for two years after going near to the site.

33. In Fortin General Dias, in Chaco, near to the river Pilcomayo, a large area containing buried barrels was discovered in January 1998 with the help of the army and air force and by using metal detectors. One of the barrels exploded and scattered powder on the hands of a helicopter pilot. Chemical analysis revealed the presence of a large amount of mercury.

34. It must be noted that the region of Chaco was under army control until 1996. It is claimed that between 1989 and 1992, more than one thousand barrels were buried with the collusion of senior army officers. When the Government changed, the army placed itself at the disposal of the new authorities in an attempt to locate sites where toxic waste might have been dumped.

35. The Special Rapporteur was informed that the use of "alternative fuel" in the Vallemi cement works (see also paragraph 19 above) had caused the mysterious death of several employees in 1992, when this product had been used. At the time, the authorities had claimed that these deaths were due to tetanus and had ordered a compulsory vaccination campaign. A variety of sources report that livestock was decimated in the area surrounding the works and that up to the present day there is no form of life in the vicinity.

36. In 1994, large numbers of fish in the Pilcomayo river died from mercury poisoning and some animals in the region lost their hair. Unfortunately, the Special Rapporteur was unable to visit the area.

37. A doctor assured the Special Rapporteur that he had examined several patients from the Chaco region and that he had diagnosed the degeneration of their immune system due to unidentified toxic substances. He said that some patients had been incoherent and suffered from dizziness or migraines. Others had displayed blotches on the skin, which showed that they had been poisoned. The Paraguayan press had reported this doctor's findings.

C. Meeting with the representative of the Pan-American Health Organization (PAHO)

38. The representative of the Pan-American Health Organization (PAHO) was pleased that the Commission on Human Rights was linking the defence of human rights with the protection of the environment. He stated that PAHO was carrying out a programme to train health workers in the management of risks connected with dangerous or toxic products. The PAHO expert had been the first to visit the port of Asunción and had recommended preliminary safety measures to isolate products previously stored in dangerous conditions.

39. In 1993, PAHO had organized an international symposium in Asunción on insecticides, pesticides and toxic wastes in Paraguay, the aim of which had been to analyse problems related to the use, storage and disposal of these substances. One of the findings of the seminar had been that it was necessary to heighten an awareness of the extent of the risks stemming from inadequate control over and the misuse of these substances. PAHO had worked out a programme to train health workers in the management of risks linked to the handling of or contact with toxic or dangerous substances.

II. TALKS AND CONSULTATIONS IN BRAZIL

40. The Special Rapporteur held talks with representatives of the Ministry of Foreign Affairs, the Department of the Environment, the National Secretariat for Human Rights and the Ministry of Justice and with representatives of the Federal District of Brasilia. The discussions centred on the state of Brazilian legislation to combat the illicit trade in toxic and dangerous products and wastes and on Brazil's experience in the matter.

A. Legal and institutional context

41. The government authorities emphasized Brazil's interest in sustainable development; great vigilance was therefore exercised over the illicit trade in toxic or dangerous products and wastes. The Brazilian Constitution of 1988 contained numerous provisions on environmental protection. Under Article 225, paragraph V, in particular, it is the obligation of the public authorities to supervise the production, marketing and use of techniques, methods or substances which jeopardize life, the quality of life and the environment.

42. Brazilian legislation was supplemented in the wake of the Rio Conference on Environment and Development in 1992 and the adoption of Agenda 21, and environmental monitoring bodies have been set up. Similarly, Brazil's ratification of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal prompted the adoption of specific laws and regulations.

43. The National Environmental Council (CONAMA), an organ of the Department of the Environment, is responsible for supervising the application of the law and for issuing regulations regarding environmental protection. It is supported by the Brazilian Environmental Institute (IBAMA) which awards certificates of compliance for products entering Brazilian territory. On 12 February 1998, the Brazilian Congress adopted Law No. 9605 on crimes against the environment. This law combined previously separate standards in one text, defined and classified offences and crimes and laid down the appropriate penalties.

44. Article 56 of the law states that "To produce, process, package, import, export, trade, supply, transport, store, keep, have in warehouse or use products or substances that are toxic, dangerous or noxious to human health or to the environment, contrary to the requirements established in laws or regulations" entails a prison sentence ranging from one to four years and a fine. Before the adoption of this law, CONAMA had adopted resolution No. 23 of 12 December 1996, which bans the import of dangerous wastes and other residues and restricts the import of inert waste. Certain non-inert wastes may be imported for recycling or reuse subject to the authorization of IBAMA and the consent of the federal State where they will be used, and in accordance with clearly defined criteria. A nomenclature of inert wastes which may be imported is being drawn up within MERCOSUR. Brazil has an import code which specifies all the products which are prohibited from entering the country (SISCOMEX).

45. In order to improve its capacity for managing movements of toxic and dangerous products and wastes, Brazil has built infrastructures, taken various steps and is participating in regional projects. A centre for training and the transfer of technologies to South America is soon to be established in

Argentina so as to train the personnel responsible for ensuring the application of the Basel Convention. A national centre for non-polluting technologies was founded in July 1995 in the State of Rio Grande do Sul, its purpose being to publicize new, more environmentally friendly technologies and thereby put an end to the risks which Brazilian industry might pose to the environment and the health of the population. This centre is the fruit of cooperation between UNEP, the United Nations Industrial Development Programme and the Brazilian Government. In addition, IBAMA is in the process of drafting a handbook for the entities which are responsible for emergency and systematic measures to reduce risks of environmental damage.

46. In its principal ports, including the coastal port of Santos, near São Paulo, Brazil has laboratories for determining the nature of products entering the country. The efficiency of these bodies is, however, restricted by the fact that testing is carried out after cargo has been unloaded. The Brazilian authorities may therefore be confronted with re-export difficulties when it is subsequently discovered that the products which have been analysed do not comply with Brazilian legislation (see the two cases mentioned below). Brazilian importers are not, however, in favour of checks on board ship, for they consider that this hampers trade and that keeping vessels tied up for too long gives rise to additional costs.

47. Although Brazilian legislation has been strengthened, its implementation is still hindered by the lack of qualified judges and investigators specialising in the suppression of ecological offences. Another problem with the legislation is caused by the fact that some lawyers hold that the resolutions of the National Environmental Council have the force of law, while others maintain that they must be treated like recommendations, hence the stretching of the rules which can sometimes be noted, like the case of the importing of lead from used batteries, which will be discussed later on (see paragraphs 102 to 104). Moreover, the Brazilian authorities say that tighter laws are producing friction with its MERCOSUR partners, which are exerting pressure to secure the adoption of weaker standards within this common market, so that they can sell their products with greater ease.

B. Particular cases brought to the attention of the Special Rapporteur

48. The first instance of the illegal entry of dangerous waste reported by the Brazilian authorities is that of four containers holding 68,332 kg of toxic wastes (copper, zinc and other heavy metals) which arrived in the coastal port of Santos (State of São Paulo) in December 1993. They had been declared as fertilizers and exported from London by the firm Euromet Hyde House, the Hide, and were destined for the Brazilian company Produquimica Indústria e Comercio Ltda. The consignee asserted that they had been misled as to the nature of the products. On 29 May and 4 June 1996 and 17 April 1997, having found that the cargo did not tally with the information on the import documents, the Department of the Environment asked for the assistance of the Secretariat for the Basel Convention, which forwarded the request to the British Government, on the basis of Article 9 of the Basel Convention which provides for the return of dangerous or toxic waste to the country of origin. In a letter of 22 August, the British Government refused the "retroactive" return of the waste, on the grounds that it had not been declared as such in the loading manifest and that the British

Government had not been a party to the Basel Convention at the time of the transaction. The Brazilian Government considers that it is the victim of a fraud which enabled prohibited waste to enter its territory although, according to Brazilian legislation, it could be allowed in only for final disposal in the country. It asks that an appropriate solution be found to the problem of the waste which is still being temporarily stored in the port of Santos.

49. The second case of illegal entry concerns the "accidental" export of a toxic product (420 litres of sodium sulphate) from Germany to Santos in January 1997. Admittedly, the German exporter has agreed to take back the product, but it is still being stored in the port of Santos because the return procedures have been protracted and it is hard to find a shipping company which will agree to transport this toxic product to Germany.

III. TALKS AND CONSULTATIONS IN COSTA RICA

50. The Special Rapporteur held talks with several Costarican authorities including the Minister for the Environment and Energy, the Defensora de los habitantes de Costa-Rica (ombudsman) and representatives of the Ministries of Health and Agriculture. She also had consultations with the President of the Inter-American Court of Human Rights. Lastly, she had working sessions with the representatives of non-governmental organizations and university institutes specializing in environmental protection.

A. Legal and institutional context

51. Costa Rica is a party to the Basel Convention, the provisions of which are implemented in domestic law by Law 7438 of 6 October 1994. It has also signed Annex III to this Convention. Law 7438 prohibits the import of toxic or dangerous products or wastes and provides for the punishment of crimes against the environment. On the basis of the "general interest" principle, any person who believes that a third party has caused damage to the environment can lodge a complaint with the civil courts, when the action concerns acts by a private individual or firm, or with the Constitutional Court when the State and its institutions are implicated. It is not necessary for the complainant to have suffered direct injury. Generally speaking, a person guilty of damaging the environment must repair the damage. A Bill on toxic waste, which is being drafted at present, will be debated in Parliament in March 1999. It makes provision for increased civil and criminal liability for the illicit trade in or storage of toxic wastes.

52. Furthermore, in 1997, Costa Rica and the United States signed an agreement on the export to the United States for recycling of dangerous industrial waste produced by American companies' installations in Costa Rica. This agreement defines "toxic waste" as being waste which is deemed toxic under the legislation of either Costa Rica or the United States. Initially, the purpose of the agreement was to permit the re-export of the industrial waste of an American microprocessor manufacturer, but it has been extended to all American firms operating in Costa Rica. In addition, the contracting parties undertake to deal with any illegal traffic in dangerous waste in accordance with Article 9, paragraph 2, of the Basel Convention. Costa Rica is also a party to the Central-American Agreement on the Transboundary Movement of Hazardous Wastes, which

prohibits the entry of radioactive waste into the territory of Central-American States.

53. The Ministry of the Environment and Energy, acting through its Technical Secretariat for the Environment, has the task of formulating and supervising general environmental policy. It cooperates with the Ministry of Agriculture and Livestock when the imports in question take the form of fertilizers, pesticides and other toxic agricultural products. The Ministry of Health is responsible for assessing the toxicity of chemicals and recommending appropriate measures for their free or restricted use, or their prohibition. These ministries coordinate their activities within the National Commission for Emergencies and Ecological Questions.

54. The customs services control the entry of toxic or dangerous products by referring to the international nomenclature and the register drawn up by the Ministry of Trade. The Costarican authorities say that their country is not a target destination for the exporters of toxic wastes because of the smallness of their territory; moreover, there is a real political will to protect the environment. Civil society, especially universities, are extremely vigilant when it comes to environmental protection. The customs services are not, however, sufficiently well equipped to carry out chemical analyses which would permit the detection of prohibited substances.

55. Costa Rica aligns its legislation on that of the United States and European countries. Consequently, it is possible to ban the import or restrict the use of a number of chemicals which are prohibited in those countries, notably pesticides like DDT. It is a moot point whether this ban or these restrictions are actually respected. In addition, the automatic application of a list established in countries where different climatic, economic and social conditions obtain, raises serious problems with regard to the compatibility of these products with the local climate and socio-economic situation and their adaptability to them. The changes wrought in products by heat and humidity, as well as instructions for use which require the wearing of overalls or other protective gear, which is extremely trying in a hot climate, were some of the drawbacks mentioned by speakers who drew attention to the dangers to which farm labourers were exposed through the use of products which were not suited to local conditions.

B. Particular cases brought to the attention of the Special Rapporteur

56. Although, according to government sources, Costa Rica is still relatively untouched by the illegal traffic in toxic wastes, other people expressed their disquiet about the massive influx and intensive use of dangerous products, including agricultural chemicals, which constitute a serious threat to the environment, as well as to the life and health of persons who come into direct or indirect contact with these substances.

57. The use of dibromochloropropane (DBCP) was often mentioned, since it had caused the irreversible sterility of more than 11,000 workers on the banana plantations of the American firms United Fruit Company and Standard Fruit Company. DBCP is a nematicide developed in 1951 by Shell Oil and Dow Chemical. The first toxicological studies carried out by these companies in the United

States with a view to obtaining a licence to market the product showed that it was extremely poisonous. Contact with small doses could damage vital organs like the lungs, liver and kidneys and cause atrophy of the testicles; in large doses DBCP causes sterility. A study conducted in 1958 by the National University of Costa Rica and passed on confidentially to Shell Oil and Dow Chemical confirmed the toxicity of DBCP.

58. Between 1967 and 1979, the certification and use of this product in the banana plantations of Costa Rica were authorised regardless of its toxicity and the effects it had on the environment and human health, nor were the banana companies required to adopt health and safety measures to protect workers. Although the United States banned the production and use of DBCP in their territory in 1975, Standard Fruit continued to import it into Costa Rica until 1979. The Costarican Government did not prohibit its import until 1988 (Executive Decree No. 18346 MAG of 8 October 1988).

59. Case studies indicate that employees of the banana plantations mixed the product with their bare hands and manually injected it at the root of plants. Moreover, they worked bare-chested, their feet were in contact with DBCP and they inhaled it. Excerpts from the report of the Defensora de los habitantes de Costa Rica (ombudsman) on this subject testify to the fact that they received no training in the proper use of this product.

> "They used to ignore the workers who during the hours every day that they mixed and injected DBCP, were placed at serious jeopardy with every breath they took. The fumes given off by the product were retained within the roof of vegetation formed by the luxuriant banana leaves, which practically cut off all ventilation. The workers were also exposed to skin contact when they were spattered with DBCP while they were filling the barrels or when the nozzles bounced back and splattered DBCP on stones and other objects."

> "Up until 1978, persons whose job it was to apply DBCP were not issued with any protective gear by their supervisors or educated about the need to take precautions with this product. The supervisors of the plantations knew nothing about the danger Nemagón (DBCP) constituted to human health. Shell and Dow only offered basic sales information".

60. This case is mentioned because it is still having repercussions today. Since 1982, more than 9,000 workers from the banana plantations have lodged complaints with courts in the United States (in Texas and New Jersey) against Shell Oil, Dow Chemical, Standard Fruit and United Fruit. 6,000 of these workers have also applied to Costarican public institutions (the Social Security Institute and Health Services Department) for compensation for industrial risks and injury. With the assistance of joint teams of lawyers from Costa Rica and the United States, these workers have claimed compensation, but have still not obtained satisfaction. The lawyers are said to have taken advantage of the situation by reaching agreements with the firms in question, under which one thousand workers have been offered trifling amounts of compensation, in an attempt to break the victims' solidarity. The ombudsman has therefore decided to take up the matter in order to help the victims and organize the appeals.

61. The people to whom the Special Rapporteur spoke do not think that all DBCP victims are yet known, because banana plantation workers are extremely mobile. Furthermore no cause and effect link has been established between the physical malformations of children born in the families of workers and the use of this product. No study has yet been made of the effects of DBCP on women working in the plantations or on the wives or children of the labourers, who were exposed to the product when they carried meals to their husbands or parents in the plantation. The harmful effects do, however, appear to manifest themselves through a variety of symptoms which should be investigated more thoroughly.

62. Attention ought also to be paid to this case because it proves that the effects of a toxic or dangerous product are not always immediate and that even when they are known beforehand, the product can be marketed in order to satisfy financial interests. High economic stakes (in the case of Costa Rica, an economy largely dependent on the cultivation of bananas), the lure of profit or financial pressure can be instrumental in the "authorization" of imports of a product which is recognized to be highly toxic and harmful to health. As will be seen below (Section V), paraquat, a pesticide which is banned in several countries, is still being used in Costa Rica and Mexico, despite the risks it represents to human health. Reports have been received that DBCP is continuing to be used in other Central-American States, notably Honduras, under different names.

C. Consultations with the Inter-American Court of Human Rights

63. The Special Rapporteur met Judge Hernán Salgado Pesante, the President of the Inter-American Court of Human Rights and Judge Antonio A. Cançado, who outlined the terms of reference, role and activities of the regional court. The members of the Court, who were aware of the close connection between environmental damage and infringements of human rights, did not rule out the possibility that the Court might establish a case law which took account of that link. The Court will very shortly have to hear and decide a case which has just been referred to it by the Inter-American Commission on Human Rights.

IV. TALKS AND CONSULTATIONS IN MEXICO

64. In Mexico, the Special Rapporteur held consultations with a wide range of representatives of divers ministries and institutions, including the Ministry of Foreign Affairs (Directorate of Human Rights and Directorate of the Environment), the Ministry of Fishing, Environment and Natural Resources (SEMARNAP), the Ministry of Communications and Transport (Directorate of Overland Transport and Directorate General of Ports), the Commission on Pesticides, Fertilizers and Toxic Substances (CICOPLAFEST), the Federal Commission on Human Rights and the National Disaster Prevention Centre. In the town of Ciudad Juarez, on the border with the United States of America, she had working sessions with the representative of SEMARNAP, representatives of the Federal Procurator for Environmental Protection (PROFERPA), the Chairman of the Commission on Human Rights of the State of Chihuahua and the representative of the Commission on Cross-Border Ecological Cooperation. Lastly, in the town of Veracruz, she visited the nuclear power station of Laguna Verde and talked to the Chairwoman of the Commission on Human Rights of the State of Veracruz. At each stage, the Special Rapporteur also had working sessions with non-

governmental organizations which devote themselves to the protection of human rights and the environment.

A. Legal and institutional context

65. Environmental protection was embodied in the 1983 Constitution and an Under-Secretariat of Ecology was set up. The General Act on the ecological balance and environmental protection (LGEEPA), adopted in 1989 and amended in 1996, is the principal legal text on the environment. One of its main purposes is the protection of the environment, natural resources, ecosystems and human health from the risks stemming from the handling of material or waste and from high risk activities. It recognizes that it is in the public interest to establish buffer zones around such activities.

66. This act introduced the concept of "ecological regional planning", environmental impact surveys and risk assessment. It stresses the importance of information and supervision. Since its adoption, regulations have been passed on environmental impact surveys, dangerous wastes, air and water pollution, marine pollution and noise. In December 1996, the act was amended to include new provisions on the adoption of an integrated system of licences and to institute the right of access to environmental information.

67. Generally speaking, the act prohibits the import of dangerous materials or wastes for the sole purpose of final disposal or mere storage, warehousing or containment in the national territory or in areas where the nation exercises its sovereignty or jurisdiction, or when their use or manufacture is not permitted in the country in which they have been made (art. 153.III).

68. The essential aim of Mexican policy on the management of dangerous products and wastes is therefore to prevent and reduce risks connected with substances produced locally. This policy covers the following aspects:

a) diagnosis, including the drawing up of inventories, the identification of problems and the determination of their scale;

b) the identification and assessment of risks to the environment, ecosystems and human health;

c) the definition and development of management mechanisms to handle and manage risks;

d) informing society about the risks;

e) the identification and application of environmental indicators which make it possible to assess whether the management mechanisms are being efficiently and effectively applied.

69. The Ministry of Fishing, Environment and Natural Resources (SEMARNAP) was set up in 1994 to promote sustainable development and to check environmental deterioration. Its task is to:

a) further the protection, restoration and preservation of ecosystems, natural resources and environmental products and services, so as to encourage their use and secure sustainable development;

b) draft environmental regulations covering activities related to the use and exploitation of natural resources;

c) establish standards for the protection, restoration and preservation of ecosystems and the environment and supervise the application thereof;

d) promote ecological regional planning together with other federal authorities at the level of the federation, States and communes, with the participation of citizens.

70. At present, this national ministry has units dealing with policies, programmes and administrative resources for forestry and fisheries, soil protection and rehabilitation, environmental management as provided for in federal laws and the planning of environmental policy. In addition, the ministry coordinates the activities and programmes of five semi-independent bodies: the National Water Commission (CNA), the National Institute of Ecology (INE), the Office of the Federal Procurator for Environmental Protection (PROFERPA), the National Institute of Fisheries and the Mexican Institute of Water Technology. In total, the Ministry of the Environment has a staff of some 39,000 and the CNA almost 25,000. The INE works out standards and also supplies scientific and technical advice, while the PROFERPA is the inspectorate which monitors compliance with environmental laws. Other government departments, like the Ministries of Agriculture, Trade, Foreign Affairs, Health, and Communications and Transport, have certain environmental duties.

71. In 1995, the Ministry of the Environment established a National Advisory Council on Sustainable Development and four regional advisory councils comprising representatives of ministries, industry, NGOs, etc., which have been instructed to give their opinion on environmental questions. Their aim is coordinate the efforts of various sectors and administrative authorities so as to ensure sustainable development, foster public acceptance of environmental policies and promote decentralization. These councils examine public policies within their domain and receive the principal draft laws for comment. They submit recommendations to the government which must state its reasons if it does not follow them.

72. An interdepartmental commission responsible for controlling the manufacture and use of pesticides, fertilizers and toxic substances (CITOPLAFEST) formulates national policies and criteria for the regulation and monitoring of the various types of products and substances within its remit. The members of this body include representatives of the Ministries of the Environment, Health and Agriculture. It has drawn up a list of chemicals the use of which is banned or restricted in Mexico. It likewise observes the effects of pesticides and fertilizers on human health, with a view to prohibiting their use, if need be, or recommending suitable protective measures.

73. Citizens have a right to initiate legal proceedings when activities contravene the General Act on the ecological balance and environmental protection. Complaints must be lodged with the Office of the Federal Procurator

for Environmental Protection. The complainants may demand the adoption of measures to prevent the impairment of the environment, natural resources, public health or the quality of life.

74. The Federal Commission on Human Rights and the human rights commissions of the various federal States are responsible for the general protection of human rights and, in this capacity, exercise joint powers over ecological matters with the Federal Procurator for Environmental Protection. The Federal Commission is competent to deal with complaints regarding ecological matters at the appeal stage, since they fall within the competence of the Federal Procurator for Environmental Protection in the first instance. The decision handed down by the Federal Commission at the appeal stage must be based solely on the review of the grounds of the appeal against the decision given in the first instance by the Federal Procurator for Environmental Protection.

B. International and transfrontier cooperation

75. Mexico is a member of the World Trade Organization, the North American Free Trade Agreement (NAFTA) and the Organization for Economic Co-operation and Development (OECD). Mexico is also a party to the Basel Convention and has ratified Annex III to the Convention.

76. In 1983, the United States and Mexico signed the Agreement for the Protection and Improvement of the Environment in the Border Area (La Paz Agreement). The five annexes to this agreement concern sewage treatment, preparation for emergencies and response in the event of industrial accidents, the transfrontier transportation of dangerous waste, emissions from copper smelting works and air pollution. The agreement served as a basis for the drafting of a border environment management plan. The joint activities provided for in this plan are the control of transfrontier movements of dangerous waste, the assessment of the scale of environmental problems, the working out of solutions, the provision of vital scientific and technical information and training.

77. The federal organs of both countries collaborated in the drafting of the Border XXI Program the aim of which is to ensure sustainable development through measures to protect human health and the environment and through the sound management of natural resources in border regions during the period 1995-2000. The programme emphasizes public participation in and the decentralization of decision-taking related to the environment.

78. Nine bilateral working groups meet every year to examine questions concerning the management or improvement of the quality of water and the air, the management of dangerous and solid wastes, pollution prevention, emergency measures, the application and respect of cooperation agreements, sources of information about the environment, natural resources and the state of the environment. The issue of dangerous waste is, however, a matter for the Federal Government and is not therefore dealt with under Border XXI Program.

C. Particular cases brought to the attention of the Special Rapporteur

1. Project to build a temporary nuclear waste store at Sierra Blanca, Texas, United States

79. The La Paz Agreement prohibits the siting of nuclear installations within 100 km of either side of the border. The State of Texas had planned to store 1.8 million m³ of radioactive material at this location for 30 years. The risks of accidents due to the geological instability of the region and the similarity of the economic and social conditions and ethnic characteristics of the inhabitants on both sides of the border triggered a powerful reaction of solidarity among the people living along the border. The residents of Sierra Blanca, most of whom are of Mexican origin (as is the population of the whole of the border area) and economically disadvantaged, saw this plan as a form of "environmental racism" and part of a strategy to turn the border zone, if not the north of Mexico, into a dustbin. It particularly objected to the fact that the radioactive waste to be contained at the planned site was to have come from the States of Vermont and Maine in very north of the United States. Thanks to joint pressure from Mexican and American ecological organizations, support from the Mexican Federal Congress and parliamentary bodies in the Mexican border states of Coahuila and Chihuahua and the diplomacy of the Mexican Government, in June 1988, the Texas Natural Resources Conservation refused to give this project the go-ahead.

2. Waste produced by the *maquiladoras*

80. The border area between the United States and Mexico, which was defined by the La Paz Agreement of 1983 as extending over a width of 100 kilometres on both sides of a border that is 3,200 km long, has 5.1 million inhabitants on the Mexican side and 5.2 million inhabitants on the American side. This border strip is economically and demographically speaking a particularly dynamic area. Between 1950 and 1980, the population in the border States on the Mexican side tripled. It is growing at an annual rate of 3 per cent and is set to double in the next twenty years. More than 2,000 firms benefiting from special customs and tax rules ("maquiladoras") set themselves up in the border region of Mexico in the seventies and eighties. They now employ more than 750,000 people. Under these rules, the raw materials these companies import are duty-free and, in return, the waste from the processing of these materials must be repatriated to the country of origin, usually the United States. The number of lorries crossing the border has doubled in five years. It is put at 2 million vehicles a year, which makes it difficult to control the movement of all the different kinds of products entering and leaving Mexico.

81. According to OECD estimates, the "maquiladoras" sector produces some 60,000 tons of dangerous waste a year. Official documents indicate that 48,000 tons of waste were processed and returned to the United States in 1996 compared with 22,000 tons in 1993. The Mexican Government intends to make an inventory of the dangerous waste produced, so as to determine whether the discrepancy of 12,000 tons between estimated and recorded production reflects true waste production in Mexico, or whether the estimate was too high. Inspections of the "maquiladoras" would seem to show that about 25 per cent comply fully with the regulations and that there are fewer serious irregularities.

82. Some people did, however, tell the Special Rapporteur that many "maquiladoras" illegally dump their dangerous waste in Mexico in fly-tips near to the border. According to OECD estimates, in 1996, only 12 per cent of the 8 million tons of dangerous industrial wastes produced annually in Mexico was properly processed. It is alleged that numerous potentially dangerous sites exist in border area States. In 1991, out of 1,855 "maquiladoras", only 200 are reported to have sent their dangerous waste back to the United States in accordance with the bilateral agreement of 1987 regulating movements of waste between Mexico and the United States. A system of recording and re-exporting this waste called HAZTRACKS, which was developed by the Environmental Protection Agency and the Mexican National Institute of Ecology, is supposed to improve the monitoring and amount of waste actually re-exported from the "maquiladoras". Nevertheless grave concerns were expressed about the change in tax regulations scheduled for 2000-2002. These new regulations would exempt firms from the obligation to re-export their waste.

3. Waste produced by electric arc furnaces in the United States

83. The OECD report on the state of the environment in Mexico mentions that dust from anti-pollution devices fitted to electric arc furnaces in the United State is exported to Mexico. In 1992 and 1993, some 72,000 tons were allegedly dumped in Mexico. Similarly, it has been reported that in 1996, 15,000 tons of waste entered the country for the purpose of salvaging metals.

4. Problems connected with the regulation of toxic products used in agriculture

84. Mexico has an effective instrument for controlling the import and use of pesticides and fertilizers in the shape of the commission which supervises these products. The official pesticide register bans the import of 21 of these products which are most harmful to human health, including aldrin, DBCP, endrin and cynophos; others such as DDT, ethyl parathion, paraquat and methyl bromide are subject to sales restrictions or their use must be supervised.

85. Nevertheless, in a survey conducted by the Ministries of Health and the Environment on the management of chemical products in Mexico, entitled Use and Management of Chemicals in Mexico, the limitations of such checks are implicitly recognized in the following comments:

a) The regulation of the chemicals is not based on a risk reduction programme according to life cycle, there are therefore still gaps to be filled;

b) There is no harmonization in the classification of chemicals in the legal provisions; in relation to the Regulations on Materials and Dangerous Residues Transportation, a classification used at international level and proposed by the United Nations was used; that same classification covers only aspects of acute toxicity relevant in case of accidents and does not include classification criteria for chronic effects;

c) There are no certified laboratories under programmes of quality control/assurance allowing the verification of compliance with the standards specifying concentrations of chemicals in products or environments;

d) Labelling of chemical products does not include enough information related to their risks and the way to minimize them;

e) Standards from other countries with realities differing from those of Mexico are frequently used.

86. Endeavours are being made to fill in the gaps in Mexican regulations on chemicals in general and pesticides in particular by working out a set of official Mexican standards.

D. Visit to the nuclear power station in Veracruz

87. The Special Rapporteur was invited to visit the nuclear power station in Veracruz on the Atlantic coast, in the south of the country. The Mexican authorities wished to demonstrate their mastery of nuclear technology and its risks and their rational management of the waste produced by the power station, which has two reactors on stream.

88. The siting of this power station close to a town with a population of over a million inhabitants worries a number of residents, including the members of the Asociación de Madres Veracruzianas (Association of Mothers of Veracruz), whom the Special Rapporteur met. The cooling water discharged from the two reactors is said to be causing changes in the region's ecosystem (above all a shortage of fish in the surrounding waters). Three employees of the power station died after allegedly receiving an excessively high dose of radiation. According to officials of the power station, medical examinations failed to establish a cause and effect relationship between the deaths and the fact that the deceased used to work at the power plant. According to non-governmental sources, at least three employees had been dismissed because they had denounced irregularities in the way the power station operated. The same sources asserted that those in charge of the power station had a habit of recruiting seasonal labour to carry out high-risk operations, like the loading of the reactor cores. These allegations, which were denied by the officials of the power station, could not be verified by the Special Rapporteur.

89. The Chairwoman of the Commission on Human Rights of the State of Veracruz, on being informed by the Special Rapporteur of the concerns expressed by the Mothers of Veracruz, promised to listen attentively to their grievances and to help them in their dealings with the relevant authorities.

V. OTHER CONCERNS EXPRESSED BY NON-GOVERNMENTAL ORGANIZATIONS

90. The right of association is recognized in the countries visited. Non-governmental organizations actively raise the awareness of the population and keep a close watch on environmental damage.

91. In Brazil, some 700 organizations were founded in the burst of enthusiasm following the Rio Conference in 1992. Five NGO representatives sit on the National Environmental Council (CONAMA), where they are trying to shift the emphasis of government policies. The international organization Greenpeace is also extremely active in the country and collaborates with a number of local

organizations. The activities of Greenpeace led to the alarm being raised about the two above-mentioned instances of exports (paragraphs 48 and 49).

92. It is estimated that in Mexico there are 400 environmental NGOs, more than 25 per cent of which are located in the Federal District. At the meeting the Special Rapporteur held with a number of them in Ciudad Jaurez, she noted that many NGOs maintained a forceful presence in the area along the border between the United States and Mexico. The preparation of the amendments added to the General Act on the ecological balance and environmental protection (LGEEPA) in 1996 had provided an opportunity for many meetings of representatives of various groups (industry, trade unions, members of parliament, universities, NGOs, etc.) in an attempt to find the suitable answers to the concerns prompting the amendments.

93. The Special Rapporteur was not supplied with any figures for Costa Rica or Paraguay, but from the talks she held in Costa Rica, it emerged that civil society is very well informed about environmental issues. Universities take a close interest in the matter and are in the van of environmental protection. The EMAUS network encompasses 25 associations. The Commission for the Defence of Human Rights in Central America (CODEHUCA) is well represented in it. Nevertheless, NGOs as a whole considered that they were insufficiently consulted and rarely associated in the decision-taking process. In Paraguay, for example, NGOs are not members of the National Executive Committee for the Application of the Basel Convention.

94. The right of association and the right of information are guaranteed in the various countries. Some NGOs were, however, of the opinion that they had been deliberately starved of reliable information or had sometimes been misinformed. For example, non-governmental organizations said that they had been deprived of information about the toxic waste in the port of Asunción (Paraguay) and they feared that political considerations had taken precedence over endeavours to find a comprehensive solution to the problem. In 1981, long before the events in the port of Asunción, several local NGOs had denounced the dumping of toxic wastes in the Chaco region, but no action had been taken on their complaints.

95. NGO representatives stressed the lack of institutional coordination in Paraguay, because almost fifty-five governmental bodies divided between the Department of the Deputy Minister for Natural Resources and the Environment, the Ministry of Health, the Ministry of Industry and the President's Office, were concerned with environmental matters.

96. One subject causing serious concern was the import and use of toxic products, like pesticides and fertilizers, in agriculture. For example, Brazil is classed as the second biggest user in the world of toxic agricultural products, the residues of which are going to pollute watercourses. The growing of tomatoes, fruit and vegetables calls for massive doses of pesticides and fertilizers, which enter Brazil without official controls because of pressure from growers and planters. The Brazilian authorities acknowledge that despite the existence of a list of chemicals whose entry into the country is authorized, the regulations covering the import of toxic agricultural products are still full of loopholes and that within MERCOSUR, negotiations with a view to harmonizing criteria for and the list of authorized imports are controversial,

as some countries prefer a levelling down of standards in order to protect their economic interests.

97. It is estimated that in Brazil there is a stockpile of 800 tons of no longer usable toxic agricultural products based on aldrin and chlorine, which must be gradually destroyed. Brazil would also like to get rid of a stock of polychlorinated biphenyls (PCB). As Brazil has no suitable incinerators, it has requested the assistance of the United Kingdom, where firms have agreed to take these products in return for payment. These products had initially been exported from the United Kingdom.

98. The effect of residues of toxic agricultural products on watercourses in the Federal District of Brasilia, where fruit and vegetables are cultivated intensively, is particularly obvious. In the same way, the packaging of these products, which litters the countryside, represents a not inconsiderable ecological hazard. Nevertheless, thanks to a sophisticated drainage system, all tap water is recycled; in fact there are 12 water conditioning stations in the Federal District of Brasilia.

99. In Paraguay, reference was made to the virtually uncontrolled entry of this type of products which are known to have detrimental effects on the environment and human health. Many agricultural labourers employed in the soya and tomato fields are exposed every day to these dangerous products, owing to a lack of training in their use and the absence of protective gear. Some NGOs teach the locals, who are particularly affected by the use of pesticides and fertilizers on the farms where they work, how to recognize dangerous substances and avoid contact with them. Nevertheless, the NGOs emphasize that the resources at their disposal are extremely modest.

100. Of all the developing countries throughout the world, Costa Rica is deemed to be the biggest pesticide importer: 294 types of products enter the country and are marketed under 2,092 trademarks. Between 1992 and 1997, Costa Rica imported approximately 40.8 million kilograms of pesticides at a cost of 540.3 million dollars. Total recorded imports in 1997 (8,971,359 kg) were 61 per cent up on those in 1992 (5,563,191 kg). During the same period, the quantity of pesticides applied per cultivated hectare rose from 12.56 kg/hectare to 20.47 kg/hectare, which is more than in many Latin-American, European, North-American or African countries. According to the WHO, they are comparable to the amounts used in the Netherlands in 1991 and in Japan in 1990. This increased use of pesticides is related to the expansion of banana growing, which alone accounts for 35 per cent of the pesticides imported into the country. The Special Rapporteur was apprised of numerous cases in which banana plantation workers and members of their families had been poisoned. Particular stress was laid on the effects of paraquat, a herbicide which, owing to its effectiveness and low cost, is still imported into Costa Rica, Mexico and other Latin-American countries.

101. In Brazil, the use of bovine somatotrophin (BST) was likewise condemned. This product makes it possible to increase the weight of cattle and boost the milk production of cows, but its effects on the human organism are as yet unknown. The ban on its use in the United States is ominous. The Brazilian Government, which would like to prohibit imports of this substance, is facing stiff opposition from breeders.

102. Another matter of concern to the NGOs is the import of used batteries from the United States for recycling in order to extract the lead. At this point, it must be pointed out that in 1994, the States parties to the Basel Convention, including Mexico and Brazil, decided by consensus to prohibit the export of wastes from member States of the OECD to developing countries for recycling. At the tenth session of the Technical Working Group of the Basel Convention in Kuala Lumpur in April 1996, lead waste from used batteries was placed on the "A" list, that is to say on the list of dangerous products which may not be exported. Under the legislation of the United States, the lead contained in used batteries is not regarded as dangerous, unless it has been ground. But there is good reason for concern about the effects on the environment and human health from the use of lead from old batteries in the countries to which this waste is exported. Lead poisoning upsets the metabolism, causes neuro-psychological disorders and saturnism.

103. In Mexico, "maquiladoras" import this type of waste, which is left in the open air and in contact with the ground, with the result that cases of contamination have been detected in the towns of Ciudad Juarez and Matamorros, for example. In Brazil, the main importer is the firm MOURA in the State of Pernambuco, in the north of the country. Since 1994, the import of used batteries for the recycling of lead has been the subject of a tussle between firms whose activities depend on this waste and Brazilian organizations which are keen to protect the environment. In May 1994, resolution No. 37 of the National Environmental Council (CONAMA) banned the import of used batteries into Brazil. In October 1996, at the behest of the then Minister for the Environment, CONAMA adopted resolution No. 8, so that eight Brazilian companies, including MOURA, the chief importer, could be authorized to import these products. Nevertheless, the hostile reaction of members of parliament and public opinion forced it to rescind the decision. In December 1996, in resolution No. 23, CONAMA reaffirmed the ban on the import of waste like the lead contained in old batteries. But on 20 August 1997, a new CONAMA resolution authorized the exceptional, temporary import of this product until 31 December 1997. It must be added that the influence of companies importing lead extracted from used batteries and the support they receive from the highest level of the Brazilian Government have had a not inconsiderable impact on legislation. For example, from January to June 1997, 5, 702 tons of lead from old batteries were imported into Brazil, 88 per cent of which came from the United States.

104. Communications from Greenpeace and the Asociação Pernanbucana de Defesa da Natureza (ASPAN) state that on-site surveys at MOURA's workshops in the town of Belo Jardim (40,000 inhabitants) in the State of Pernambuco, revealed a high level of ground, air and water pollution by lead, due to the improper storage of waste (out of doors) and operating conditions which abuse the environment. Several of the firm's employees suffered from lead poisoning after being exposed to lead dust. The medical examination of some employees revealed an abnormally high level of lead in their blood and symptoms of neurological and organic dysfunctioning. But it is reported that MOURA has not taken any steps to improve the working conditions of its labour force and has merely prescribed analgesics, tranquillizers and vitamins.

105. In addition to the adverse effects of lead imports, the siting of incinerators was mentioned in Brazil and Mexico. In the State of Pernambuco, in the north of Brazil, an abortive attempt was made to build a toxic waste

incinerator in 1992. The State administration of Pernambuco received a proposal from two American companies to build a incinerator for industrial waste from the United States in the valley of the Piracicaba river in order to generate electricity. Thanks to pressure from ecologists in the Asociação Pernambucana de Defesa de Natureza (ASPAN) and the Society for the Defence of the Environment of Piracicaba and to spirited opposition from the local population, the authorities of Pernambuco had to reject this offer. In Mexico, fears were expressed about the growing number of incinerators in the border area. It is thought that when the maquiladoras' special tax system ends in the year 2000, they will no longer be bound to export their waste, but to process it on the spot, hence the trend towards the building of this type of plant which emits air pollutants which jeopardize health.

106. No clear legal provisions have yet been formulated on the compensation of victims of ecological crimes in most of the countries visited. For example, in Brazil, the only text mentioned was an ad hoc law of the State of Goias which was adopted in order to compensate someone who had been irradiated, along with members of their family, after handling radiographic apparatus containing caesium, which had been abandoned on a rubbish dump. In Costa Rica, the victims of dibromochloropropane (DBCP) have not yet won their case.

VI. CONCLUSIONS AND RECOMMENDATIONS

107. The analysis of the main trends and features of movements of toxic waste and dangerous products in the Special Rapporteur's previous reports to the Commission on Human Rights showed that, over the last decade, the region of Latin America and the Caribbean was tending to become a favourite target area for the illegal traffic in these products and wastes. The situation noted during the mission undertaken to four countries in the region confirmed this finding. The cases brought to the attention of the Special Rapporteur and the concerns expressed by government and non-governmental representatives revealed both the interest in the issue of the people to whom she spoke and the diversity and, in some instances, the seriousness of the problems facing them.

108. Most of the countries visited now have well developed legislation on environmental protection, as well as laws to combat and punish illicit trafficking. Nevertheless, neither the international instruments to which they have acceded (among others the Basel Convention), nor the national laws and regulations they have passed, shelter them completely from illicit trafficking.

109. Even countries like Costa Rica and Mexico, which state that they do not know of any definite cases of unlawful dumping of toxic waste in their territory, admit that they do not have any reliable data enabling them to rule out the possibility. In Mexico, a number of the people informed the Special Rapporteur about the discovery of fly-tips of toxic products and out-of-date medicines of unknown origin. The general opinion is that it is impossible to keep an adequate check on goods that do indeed enter the country through the northern border, the route taken by more than 2 million lorries every year and where numerous "maquiladoras" are sited, many of which do not comply with the obligation to re-export waste generated by the processing of materials temporarily allowed into Mexico under special customs and tax regulations.

110. Moreover, most countries in the region experience problems stemming from the activities of foreign companies which import inappropriate technologies, use dangerous products, make intensive use of pesticides or indulge in recycling operations in conditions which abuse the environment, impair the quality of life and infringe workers' rights.

111. In cases where it has been proved that potentially toxic or dangerous wastes and products have been unlawfully transferred, for example in Paraguay and Brazil, the countries have not succeeded in securing the application of the principle established by the Basel Convention that such waste and products must be returned to the country of origin, or sent to countries which have facilities ensuring their disposal or environmentally sound management. As far as Brazil is concerned, the Special Rapporteur considers that a signatory State of the Convention has at least a moral responsibility to assist a ratifying State which considers itself to be a victim of fraudulent practices, to find a way of disposing of waste that is being temporarily stored in the port of Santos (near São Paulo) after entering the country illegally and which, under Brazilian legislation, may not be allowed into the country for final disposal. The Special Rapporteur requests the Secretariat for the Basel Convention rapidly to approach the States parties, especially the countries concerned, in order to find a solution consistent with the spirit and the letter of the Convention, in particular article 9, paragraphs 3 and 4.

112. The Basel Convention and the national laws of the countries visited regard the illegal traffic in dangerous waste as a criminal act liable to punishment under criminal law, regardless of any civil or administrative penalties which may be imposed on persons found guilty of such trafficking. In reality, even when complaints are formally lodged, offences go unpunished owing to the difficulty of tracing trafficking networks right through to the source of wastes or products and determining responsibility.

113. Confirmed cases of the unlawful introduction into a country of waste and/or products which might prove to be toxic or dangerous provide an insight into the sophisticated methods and frauds practised in order to have prohibited imports of products admitted to a country. Brazil offers a revealing example of these tricks which defeat the vigilance of national supervisory bodies and undermine authorization procedures. Events in Paraguay suggest internal and external collusion and the existence of a huge international network of screen companies which indulge in other equally culpable activities such as the sale of drugs or money laundering.

114. A number of people stressed that incidents which had come to light often thanks to the watchfulness of local associations and NGOs like Greenpeace International, might represent only a tiny percentage of the waste and products which are banned from import, but which are smuggled into the countries of Latin America and the Caribbean and buried there illegally. The same people emphasized that the customs authorities and other administrative services responsible for supervision were not sufficiently aware of the problem. Moreover, many Latin-American countries do not have the resources or facilities to check the goods and analyse the nature of products entering the country. Generally speaking, the inadequacy or lack of means of control and the absence of coordinated networks for collecting information about movements into and out of the country of

products that are prohibited or tightly regulated, result in a situation where illicit trafficking remains covert, undetected or underestimated.

115. The Special Rapporteur therefore draws attention to the very great importance of heightening the awareness of officials in sectors which might be directly or indirectly linked to this problem. She recommends the strengthening of countries' capacities to detect and crack down on any attempt to bring in prohibited products which would constitute a violation of national laws. She further recommends that products allowed into a country's territory in temporary transit should be subject to stricter checks. It is also important that in the region of north and south America a reliable information and data network be set up which would make it possible to establish a warning system to prevent illicit trafficking and to coordinate action to counter and curb such trafficking, including the tracing of networks and organized rings.

116. The chief problems observed during the on-the-spot mission were still the lack of reliable information about internal and transboundary movements of toxic wastes and dangerous products; the absence of legislative harmonization among the countries, which would make it possible to prevent products which were allowed in some countries, but prohibited in others, to enter or leave a country; the lack of means to ensure supervision and the effective implementation of bilateral agreements, international conventions and national laws, and, in some, cases, the inadequacy of infrastructure, laboratories and testing equipment for analysing the nature and properties of products admitted to the country.

117. The Special Rapporteur was pleased to note that meaningful steps had been taken in most of the countries visited to combat the illegal entry of dangerous wastes. Efforts had been made to draft appropriate legislation, strengthen the means of action of administrative supervisory and management bodies, recognize the exercise of the right of association and petition, and organize redress for victims.

118. Nevertheless, many local associations and NGOs pointed out that, in fact, they had only limited resources to set existing appeal procedures in motion, obtain tangible improvements in the condition of damaged environments and see to it that the claims of workers, other victims and their successors were granted.

119. The most serious worries are still the excessive or uncontrolled use of chemicals and toxic agricultural products and the harmful effects on the environment and health of the activities of foreign transplants and transnational companies, which are taking advantage of liberalization and deregulation to employ products and substances which are prohibited in the developed countries and to transfer highly polluting industries and those which produce large quantities of dangerous waste. Furthermore, recycling activities were condemned when they consisted of dangerous operations (import of batteries for the recycling of lead and, above all, incineration).

120. Representatives of NGOs and research institutes in the countries visited underlined the fact that many products and chemicals were imported from developed countries (principally the United States, Germany, Great Britain and Japan). Consequently, the toxicological studies conducted in those countries with a view to the authorization of a product did not take account of the

geography and climate of other regions, like the tropics, or of the socio-economic conditions obtaining in the developing countries. The Special Rapporteur stresses the need to equip the laboratories of developing countries with apparatus enabling them to define local rules for the use of toxic products and dangerous substances. She advocates research and data exchanges at regional level.

121. The Special Rapporteur notes with satisfaction that Costa Rica (1998) and Mexico (1987) have signed bilateral agreements with the United States, under which American firms are obliged to re-export the dangerous wastes generated by their activities in these countries. In Costa Rica, however, she noted that this agreement (probably because of its recent nature) was unknown in university and NGO circles. She therefore recommends that this agreement be widely circulated to institutes, workers' associations and NGOs which could demand its effective application.

122. Two problems had been recorded with the agreement between America and Mexico. First, the "maquiladoras" are not complying fully with the re-export obligation. Many are suspected of evading this obligation by dumping waste in fly-tips. The Special Rapporteur recommends that additional efforts be made to improve the current system for recording and supervising re-exports of waste. Secondly, the tax and customs system applying to the "maquiladoras" partly bases the obligation to re-export waste on the fact that it comes from imported materials that are exempt from customs duties. The special rules applying to "maquiladoras" are due to disappear under the North American Free Trade Agreement (NAFTA) and the consequence will probably be that the obligation to re-export waste will be lifted. The representatives of Mexican civil society expressed grave misgivings about this. The Special Rapporteur recommends that the Mexican Government devote its attention to this particular aspect of the problem and, if necessary, negotiate bilateral arrangements with the governments of the firms in question (mainly the United States, Canada and Japan), so as to reduce the risks which might be entailed by this change in tax and customs rules. She considers that the obligation to re-export ought at least to be maintained for dangerous waste which, in view of Mexico's capacities, could not be allowed into the country for final disposal or managed in an environmentally sound manner.

123. The Special Rapporteur expresses her great satisfaction over the happy outcome to the project to locate a temporary nuclear waste store in Sierra Blanca, about which she had received sundry complaints. She hopes that the legal aspects, geographical conditions, economic, social and cultural factors and the environmental and human considerations underpinning the wise decision to abandon this scheme will be remembered should there be any similar plans in the future. The Special Rapporteur intends to keep a close watch on the international repercussions of the question.

124. The Special Rapporteur notes the positive steps taken by the Defensora de los habitantes in Costa Rica to help workers in banana plantations belonging to the American companies United Fruit and Standard Fruit to obtain compensation for their sterility brought about by the use of DBCP. She trusts that just compensation will be awarded to the plaintiffs and that any person who considers that they are a victim, including the women and children exposed to this product will be able to avail themselves of effective remedies. She recommends that

legal aid be granted to the victims and that a national or international expert's survey be conducted in order to determine all the effects on health of the use of the product in question. The Special Rapporteur expresses her gravest anxieties in view of information that DBCP and paraquat are still being used, under different names, in other Latin-American countries.

125. With reference to Paraguay, the Special Rapporteur points out that at the end of her visit to the country, she issued an appeal in which she stressed the importance of preventive measures at national, regional and international level in order to halt the illegal dumping of toxic and dangerous products, which is a serious threat to the rights of every individual to life, health and a healthy environment. In the same appeal, the Special Rapporteur underlined the need for urgent action and international assistance for Paraguay, which did not have the means or appropriate resources to contend with the situation. Immediate requirements include the destruction by a specialised industrial firm using the process of incineration, of products identified by the UNEP team of experts. In addition, the Special Rapporteur requests that she be sent the team's final report and that the conclusions thereof be published. She requests that the samples taken by the team of experts undergo an analysis which will make it possible to identify the laboratories, companies and countries of origin of the products which entered Paraguay illegally, so that they can be sent back. Since this analysis and identification is technically possible, the Special Rapporteur wonders why they have not been carried out. Furthermore, the Special Rapporteur requests the Paraguayan Government to continue to cooperate and to pursue the national inquiry now underway, in order to establish the facts, define responsibilities and to find and initiate proceedings, including criminal proceedings, against those guilty. She issues an appeal for international judicial assistance and asks the alleged countries of origin of the trade and any countries of transit to cooperate fully to that end.

Annex

LIST OF PERSONS AND ORGANIZATIONS CONSULTED BY THE SPECIAL RAPPORTEUR DURING HER MISSION

PARAGUAY

Mrs Leila Rachid	Deputy Minister for Foreign Affairs
Mr Carlos Ortiz Barrios	Judge in charge of the case of toxic waste in the port of Asunción
Mrs Carolina Llanes	Prosecutor
Mr Juan Maria Carrón and Mr Juan Manuel Peralta	Senators, members of the Special Senate Commission on toxic waste

Members of the National Executive Committee for the application of the Basel Convention

Captain Oscar Brisuela Perdomo	Acting Director of the port of Asunción
Mrs Laura Alarcón	Human Rights Director at the Ministry of Justice and Labour
Mr Anthony Stanley	Director of the National Institute of Technology and Standardization
Mr Richard Narich	French Ambassador
Mr Mario Salzmann	Resident UNDP representative
Mr Paulo Teixeira	Advisor on health and environment of the Pan-American Health Organization

Members of the network of Paraguayan environmental organizations, coordinated by Mrs Angélica Delgado

Mr Pedro Gaona	Coordinator, Department of the Environment of the Committee of Churches
Dr Joël Holden Filártiga	Medical doctor
Mr Guillermo Sequera	Chairman of the organization Axial, Naturaleza y Cultura
Mr Carlos Abadie Pankow	National Secretary, Amnesty International, Paraguay
Mr Elbio Venera	Journalist, *Diario de Noticias*

BRAZIL

Brasilia

Mr Antonio Augusto Dayrell de Lima	Head of the Environmental Department, Ministry of Foreign Affairs
Mr Marco Antonio Diniz Brandão	Head of the Human Rights Department, Ministry of Foreign Affairs
Mr José Gregori	National Secretary for Human Rights, Ministry of Justice
Mr Eraldo Trinidade	Deputy, Chairman of the Human Rights Committee of the Chamber of Deputies
Mr Haroldo Mattos de Lemos	Secretary for the Environment, Department of the Environment
Mr Ernest Otto	Adviser on international questions, Ministry of Health
Mr Frederico Magalhaes	Director General of the Institute of the Environment and Ecology, Federal District of Brasilia
Mr Walter Franco	Resident UNDP representative
Mr Jorg Zimmermann	Official in charge of environmental questions, UNICEF, Brazil

São Paulo

Mr Eugenio Singer	Director, Environment Resources Management of Brazil
Mr Yanko Guimarães Jr.	General Administrator, Environment Resources Management of Brazil
Mr Ruben Harry Born	Executive Director, Vitae Civilis
Mr Francisco Luiz Rodrigues	Chairman, Associacão Brasileira deLimpieza Publico
Mrs Marijane Lisboa	Consultant, Greenpeace International
Mrs Suzy Rocha	Chairwoman, Associacão Pernambucano de Defesa de Natureza

COSTA RICA

Mrs Yamileth Astorga	Costarican Ecological Association, AECO
Judge Antonio A. Cançado	Member of the Inter-American Court of Human Rights
Mrs Elizabeth Carazo	Centre of Investigations into Environmental Pollution, University of Costa Rica
Mr Germán Carranza	Engineer, Head of the Department of Agricultural Materials, Ministry of Agriculture
Mr Hernán Hermosillo	Association of Technical Promotion Services, ASEPROLA
Mr Arturo Navarro and Mr Orlando Rodríguez	Ministry of Health officials
Mrs Sandra Piskz	Ombudsman
Mrs Ana Ester Posada	Lawyer, Commission for the Defence of Human Rights in Central America (CODEHUCA)
Mr Carlos Manuel Rodríguez	Acting Minister of the Environment and Energy
Judge Hernán Salgado Pesante	President of the Inter-American Court of Human Rights
Mrs Virginia Trimarco	Resident UNDP representative
Mr Rudolph Van der Haar	Regional Institute of Toxicology, National University.

MEXICO

Mexico

Mrs Silvia Alegría	Lawyer, Adviser to the Department for the General Coordination of Ports and the Merchant Navy
Mr Dario Arrieta Leyva	Lawywer, Director of Standardization, Ministry of Communications and Transport
Mr Armando Barbosa	Lawyer, Ministry of the Interior
Mr Luis Héctor Barojas Weber	Director General of Environmental Safety and Protection

Mr Bruno Guandalini	Resident UNDP representative
Mr Ricardo de la Barrera	Technical Officer, National Disaster Prevention Centre
Mr Enrique Bravo Medina	Technical Director, Latin America, World Environment Centre
Mr Rodrigo J. Chaves Martinez	Director General of the Merchant Navy
Mr Hugo Cruz Valdés	Director General of Ports
Mr Luis A. Diaz Sierra	Director of Shipbuilding and Safety Inspection
Mrs Georgina Fernandez	Lawyer, National Disaster Protection Centre, Ministry of the Interior
Mr Valentín Neri Fonseca	Lawyer, Head of the Department of Standards for the Transportation of Dangerous Materials, Ministry of Communications and Transport
Mr Rocío Guerrero Bravo	Lawyer, Head of the Department of International Affairs, General Directorate of Ports
Mr Miguel A. Irabien Alcocer	Federal Procurator for Environmental Protection
Mr Damaso Luna	Director General of the Environment and Natural Resources, Ministry of Foreign Affairs
Mr Ramiro Magaña Pineda	Lawyer, Director of Multilateral Affairs, Ministry of Energy
Mr Martinez Narvaez	Lawyer, Ministry of Communications and Transport
Mr Francisco Martínez Naváez	Engineer, Director of Policies and Programmes, Directorate General of Ports
Mr Manuel Mondragón	Lawyer, Ministry of Communications and Transport
Mr Abraham Nehmad Hanono	Lawyer, Ministry of the Environment, Natural Resources and Fisheries
Mr Raúl Ortiz Magaña	Director of Radiological Safety, Ministry of Energy

Mr Bernado Peña Guzmán	Deputy Director of International Affairs, Directorate General of the Merchant Navy
Capt. Miguel Angel Rebolledo Guiot	Director of Navigation, Directorate General of the Merchant Navy
Mr Eleazar Benjamín Ruiz y Avila	Director General of Human Rights, Ministry of Foreign Affairs
Mrs Alma Quan Torres	Lawyer, Ministry of Health
Mr Francisco Torres Ramírez	Director of Nuclear Power Stations, Ministry of Energy
Mr Luis Wolf Hegmann	Engineer, National Institute of Ecology
Mr Alejandro Calvillo Unna	Acting Director, Greenpeace Mexico
Mrs Egenia Acosta	Member, Network of Action on Insecticides and Alternatives in Mexico (RAPAM)
Mr Fernando Bejarano Gonzalez	General Coordinator, RAPAM
Mrs Martha Dolgado	Union of Environmental Groups
Ciudad Juarez	
Dr René Franco Barreno	Director of Project Development, Commission on Cross-Border Ecological Cooperation
Mr Gonzalo Bravo Vera	Coordinator of Public Participation, Commission on Cross-Border Ecological Cooperation
Mr Heliodoro Juarez Gonzalez	Chairman, Commission on Human Rights of the State of Chihuahua
Mrs Judith Ramirez Morales	Representative of SEMARNAP, Mexico
Mr Luciano Grobet Vallarta	State representative, SEMARNAP, Chihuahua
Mrs Patricia y Mosco Juarez	Aqua II
Mr Javier Medano	Technical Studies Centre of Ciudad Juarez
Mr Francisco Felix Durán	Biologist

Mr Raul A. Rico, Mr René Franco and Mr Arturo Limón	Movimiento Ecologista Mexicano
Mr José Luis Rodríguez and Mrs Clara Torres	Mañana Ac
Mrs Maria del Pilar Lopez Marco	Biologist, State representative, Department of the Federal Procurator for Environmental Protection, Chihuahua branch

Veracruz

Mr Adalberto Fox Rivera	Executive Secretary, Commission on Human Rights of the State of Veracruz
Dr. Jose Francisco Torres	Director of the nuclear power station of Laguna Verde
Dr. Margarita Herrera Ortiz	Chairwoman, Commission on Human Rights of the State of Veracruz
Mrs Sara Gonzalez	Asociación de Madres Veracruzianas